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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/527,516	03/16/2000	Hirohiko Nakazato	9976-8US (OB0019US)	2106

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PHILADELPHIA, PA 19103-7013

EXAMINER

TRAN, DOUGLAS Q

ART UNIT	PAPER NUMBER
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2624

DATE MAILED: 12/03/2003

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/527,516

Applicant(s)

NAKAZATO, HIROHIKO

Examiner

Douglas Q. Tran

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-14 is/are allowed.
- 6) ☒ Claim(s) 1,3-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Lee (US Patent No. 6,567,175 B1) and Brown, III et al. (US Patent No. 5,960,166).

As to claim 1, Lee teaches a printing system (i.e., a computer-printer system 300 in fig. 3) comprising a computer (80 in fig. 3, col. 4, lines 57-58) and a printer (50 in fig. 3),

wherein said computer (80 in fig. 3) includes a plurality of printer drivers (i.e., 20a, 20b and 20c in fig. 3) provided for different emulations, respectively, (col. 5, lines 5-10 describes that the single printer driver "i.e., an integrated printer driver 25" including different sub-programs or different emulators such as a plurality of the printer drivers 20a, 20b and 20c are stored in the memory 20 according to the type of operating system "e.g. DOS, Windows, UNIX" and a plurality of the application programs being used by the computer 80. Therefore, each of printer drivers provides each emulation so that the printer accepts and understands for processing the type of the print data, via from one of printer drivers, which is generated from one of the application programs as well as the operation system from the computer 80),

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said computer comparing an environment of said computer (i.e., an operational state of the computer) and an environment of said printer (an operational state of the printer) to select one of said printer drivers based on a result of the comparison (col. 5, lines 18-23 describes that the control unit 10 of the computer 80 includes a printer driver calling device 215 for searching and choosing one of the printer drivers corresponding to control signals from control unit 10 generated *after* control unit 10 determines the operational state of the computer 80 and the operational state of the printer 50. In this case from recited claim, there is no particular elements of environments between the computer and printer are compared; that means a particular element of environment in the computer is not compared with the same particular element of environment in the printer. The comparison in recited claim would be understood that the checking of any environment in the computer and any environment in the printer how to be suitable in order for the print job is prepared by the selected printer driver. Therefore, it would be understood that *an* environment “or *an* operational state” of the computer and *an* environment “or *an* operational state” of the printer are determined as a normal operating “col. 5, lines 50-52”. The normal operating would be considered as suitable operating or matching operating between the computer and the printer so that the print job is prepared for printing), and

said computer sending the image data to said printer, and wherein said printer receives the image data from said computer and processes the received image data according to one of said emulations corresponding to said selected one of said printer drivers to implement printing (col. 5, lines 49-53 describes that the computer sends the print data generated by the application program “col. 5, lines 43-45” to the printer for printing process proceeds in step 14 “in fig. 4”

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after the normal operating response from computer 80 and printer 40 is determined and one of the printer drivers is selected “col. 5, lines 18-23”).

However, Lee silences to teach 1) the environments of the computer and the printer include a free memory size of the computer and printer for storing a size of the image data; 2) the selected printer driver processes the print data generated from the application so that the printer receives and processes the processed print data.

Lee teaches the integrated transmit receive interface device 200 to sense an operation state of the computer and printer (col. 5, lines 10-16), thus, the operation state of the computer and the printer could be any of conditions between the computer and the printer such as a free memory size of the computer and printer for storing a size of the image data. Therefore, the condition for the operation states between the computer and printer such as a free memory size of the computer and printer for storing a size of the image data, which would be obvious to the printing system of Lee.

Furthermore, Brown, in the same field of endeavor “i.e., printing system in fig. 1”, teaches printer drivers (or any of printer drivers) from the host computer process the print data generated from the application program so that the printer processes the received print data from that printer driver (col. 2, lines 63-66 describes that the print data including page data is generated by the application program. Col. 3, lines 5-7 and 34-40 describes that many printer drivers for operation on host computers such as a host computer 11 “in fig. 1” have been produced for creating page data both in bitmap format and in a page description language “i.e., PDL” such as PCL format and PostScript format. In another case, with respect to col. 3, lines 41-44, if the printer drivers just produce the page description language “PDL”, then the printer

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controller "12 in fig. 1", which locates within a printer because the printer includes the printer controller 12 and the print engine 13 in fig. 1, processes the received print job in the PDL format by converting it into bit map format data for printing).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify each of printer drivers of Lee for processing the print data from the application before transmitting to a printer as taught by Brown. The suggestion for modifying the printing system of Lee can be reasoned by one of ordinary skill in the art as set forth above by Brown because the modified printing system of Lee would increase the efficiency of the integrated printer driver in order for each printer driver converts the print data generated from one of the application programs into the page description language "PDL" format. The resultant printing systems allow the printer easily to recognize the type of the print job and know how to process the print job when it receives the print format via the printer driver.

As to claims 3-5, Lee teaches every feature in claim 1, and further teaches the integrated transmit receive interface device 200 to sense an operation state of the computer and printer and a data transmission state to printer (col. 5, lines 10-16), thus, the operation state of the computer and the printer could be any of conditions between the computer and the printer such as a free memory size of the computer and printer for storing a size of the image data, a paper feed speed of the printer, a drawing speed of the computer upon drawing the image data, or a drawing speed of the printer upon drawing the image data, an evaluation size of an intermediate metafile of the image data in the computer, and a free memory size of the printer for storing therein the image data. Therefore, the above limitations which would be the condition for the operation states between the computer and printer and which would be obvious to the printing system of Lee.

Allowable Subject Matter

3. Claims 6-14 are allowed.

Claim 6 is independent claim.

The following is an examiner's statement of reasons for allowance:

As to **claim 6**, the present invention from the application discloses the printing system comprising a computer having printer driver selecting section which compares the environments of the computer and the printer from a computer environment determining section and a printer environment determining section to select one of the printer drivers; and the printer further including an emulation judging section which judges one of the emulations corresponding to the selected one of the printer drivers. The closest prior art such as Lee (US Patent No. 6,567,175 B1) discloses a printer driver calling device for selecting one of printer drivers corresponding to control signals from control unit generated after control unit determines the operational state of computer and printer; and Brown, III et al. (US Patent No. 5,960,166) teaches that the printer receives the print data in PDL format generated by the printer driver from the computer. However, the combination of Lee and Brown, including an updated electronic text search, fails to anticipate or render the above underlined limitations obvious.

Response to Arguments

Applicant's arguments with respect to claims 1, 3-5 have been considered but are moot in view of the new ground(s) of rejection. This action is made **non-final**.

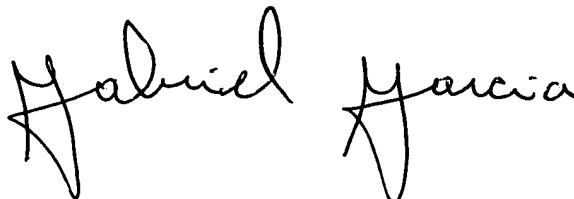
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Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Douglas Q. Tran whose telephone number is (703) 305-4857 or E-mail address is Douglas.tran@uspto.gov.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4700.

Douglas Q. Tran
Dec. 01, 2003

A handwritten signature in black ink that reads "Gabriel Garcia". The signature is written in a cursive style with a large, stylized 'G' and 'G'.

GABRIEL GARCIA
PRIMARY EXAMINER